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Weekly Bulletin

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Vol. II, No. 44 DECEMBER 15, 1923 GUY P. JONES
EDITOR

Some Historical Facts About Toxin Antitoxin.

¶ The possibility of using toxin antitoxin in the active immunization of children against diphtheria was first suggested and discussed by Theobald Smith, an American physician, in 1907.

¶ First attempts at immunizing human beings against diphtheria, by means of toxin antitoxin, were made by von Behring of Berlin in 1913.

¶ The standardization of this method of immunization against diphtheria and its practical application to large groups of individuals were begun by Park of New York City late in 1913.

¶ Since 1916 Park and Zingher have advised the active immunization of children by means of toxin antitoxin.

¶ In New York City, up to January 1, 1922, at least 15 per cent of the total number of children in the schools had been immunized against diphtheria by means of toxin antitoxin and about 10 per cent of the parents of that city had their children of preschool age immunized. In two years the diphtheria death rate for New York City fell from 22 per 100,000 population to 16 per 100,000 population.

¶ It has been definitely established that immunity in at least 90 per cent of children so immunized is for more than six years and probably for the remainder of their lives.

¶ For the good of California children they should be immunized against diphtheria by means of this preventive, toxin antitoxin. The best way to reduce the prevalence of this disastrous disease is through the use of this preventive. To extend its application is to save much suffering and many deaths among the children of California.

California Smallpox Record for a Decade.

Last year brought the greatest number of deaths from smallpox during a single year and there were almost as many deaths during the year 1921, when 5581 cases were reported. Smallpox is showing an increase within the state at the present time. Following are the numbers of cases and deaths from the disease in California during the past ten years:

Year	Number of cases	Number of deaths	Death rate
1913	800	15	0.55
1914	677	1	0.03
1915	336	3	0.15
1916	234	12	0.44
1917	329	13	0.43
1918	1069	3	0.09
1919	2002	5	0.24
1920	4486	4	0.11
1921	5581	19	0.55
1922	2129	20	0.54

FUTURE OF HEALTH OFFICER.

In these progressive times there is a magnificent future for the medical officer of health. "Prevention is better than cure," and though he will frequently be expected to prevent the unpreventable, and remove the irremovable, his opportunities to improve the physical condition of the people will be abundant, and his influence for good on the health of the community enormous. In all circumstances, and on every possible occasion, he should strive to work hand and glove with the practitioners in his district—his work then will be far easier of accomplishment and more satisfactory in achievement than if a state of armed neutrality or open warfare existed between him and them.—E. B. Turner.

The Smallest Disease Germs.

During the latter part of the nineteenth century, the term filtrable virus was introduced in medical literature to describe a group of disease-producing agents, so small that they could pass through an earthenware filter, the pores of which were smaller than the smallest bacteria then known. Since these organisms were so minute that they could not be seen with a high powered microscope, it became customary to speak of them also as ultramicroscopic organisms. Later it was found that if these organisms were properly stained, their presence could be determined under the microscope, and the latter term was discarded. It is an interesting fact, as pointed out by Dr. Charles E. Simon, that the first representative of this class of disease-producing agents was an organism causing the mosaic disease of the tobacco plant. This was described in 1892. Two scientists were able to show in 1898 that the cause of hoof and mouth disease was an organism of this character, and it was suggested at that time that other conditions, such as scarlet fever and measles, might also be due to filtrable viruses. Finally, in 1913, a list of forty-one diseases, affecting man and various animals, was assembled, in which satisfactory evidence seemed to have been collected that the causative organism was of this character. Since that time a number of other conditions have also been definitely connected up with the activity of such small bacteria. The most recent investigations concern the relationship of a filtrable virus to epidemic encephalitis, epidemic influenza, measles and trachoma. Numerous investigators have shown, by injection of material taken from patients with epidemic encephalitis—"American sleeping sickness," an inflammation of the brain—that a disease resembling it could be produced in animals. When the tissues of the animals were examined, they were found subject to changes like those that occurred in human beings who had died of the disease. Workers at the Rockefeller Institute for Infectious Diseases have found an organism in washings from the noses of persons with influenza which they believe is the causative organism in influenza, and numerous investigators have found organisms of this character in the blood and in the secretions of persons with measles.—*Hygeia.*

Tuberculosis Institute for Student Nurses.

Tuesday, December 4th, was Tuberculosis Day in the twelve schools of nursing in San Francisco. The San Francisco Tuberculosis Association and the Bureau of Registration of Nurses united in conducting an institute on the subject of tuberculosis for the student nurses of San Francisco. The institute was held in three sessions of two hours each: morning, afternoon and evening. The program, arranged especially to meet the needs of students, presented for discussion the topics, "Is Tuberculosis Nursing Dangerous for Nurses," "The Nurse's Part in the Prevention of Tuberculosis," "Nutrition in Relation to Prevention of Tuberculosis," "Organized Forces Combatting Tuberculosis," "The Nurse's Place in Tuberculosis Work," "Technique in Tuberculosis Nursing." Each topic was handled by physicians and nurses who were well equipped to present it to the students in a comprehensive manner.

The institute was held in the auditorium of the Stanford School of Nursing, which is exceptionally well fitted for a large gathering. The attendance of all three sessions totaled 814 students; at the evening session alone there were 383 students. The San Francisco Tuberculosis Association has offered two prizes for the best two essays on tuberculosis submitted by students who took part in the institute.

The success of the institute rested in a large degree on the cooperative ability of the superintendents of the schools in arranging their schedule so that all of their students could attend at least one session. Class work was suspended and the full attention of the students was focused for that day on the great problem of tuberculosis. Credit was given by each school for attendance at the session.

This is the first institute of this kind that has been undertaken in California. The interest shown by the students is encouraging for making further efforts in carrying the message to them of their part in the great work of health education and the opportunity that lies before them in their future professional field. It is probable that more such work will be undertaken and although it means much effort on the part of the schools it should undoubtedly bring results by creating a desire on the part of student nurses to take special courses in tuberculosis nursing.

With the magnificent opportunity we have in this state for graduate study in the various sanatoria for tuberculous patients, only one, Barlow Sanitarium, has had the vision and the initiative to open its facilities to student and graduate nurses. It will be encouraging when students will demand this experience as part of their preparation for either private nursing or public health work and we hope institutes will hasten that time.

Outlines Method of Cancer Survey.

In an address read before the Belgian National Cancer Congress held in Brussels, November 18, 19, 1923, Dr. Frederick L. Hoffman, Chairman of the Committee on Statistics of the American Society for the Control of Cancer, made reference to the cancer survey now being undertaken in San Francisco. He said:

"Based upon my urgent plea for a local investigation, the San Francisco Board of Health, through its Medical Officer, Dr. William C. Hassler, has generously agreed to have an abstract made of the fundamental cancer mortality data, from which it is hoped to carry on an original inquiry along entirely new lines and which may prove productive of practically useful results. The investigation will be carried on through the cooperation of the San Francisco Board of Health, the Statistical Committee of the American Society for the Control of Cancer, and several important life insurance companies contributing towards the necessary expense.

The agreed-upon procedure is to first secure a correct transcript of all certificates representing deaths from cancer in San Francisco during the last three years. This material will be subjected to a critical examination, followed in the case of each and every death by a personal inquiry into antecedent facts and conditions likely to have a bearing upon the development of cancerous processes. No time limit has been set for the conclusion of this investigation, which may extend and probably will extend over a number of years. It is intended later on to adopt a similar procedure with regard to living cancer cases, especially such as are receiving treatment in San Francisco public institutions, so that the facts which bear upon questions of causation, development and treatment will be more thoroughly understood."

California Birth Rate Is Rising.

During the eight months, January to August, 1923, inclusive, 52,326 births were registered in California, a birth rate of 20.6 per 1000 population. This is the highest yet recorded in this state. During the same period 36,153 death certificates were filed, indicating a death rate of 14.3, which is about "normal" for California.

There has been an apparent increase in infant mortality. The rate thus far this year is 74.8 compared with 71.0 for the same period last year. The present provisional rate is nearly as high as that for 1920. The greatest number of infant deaths, 588, occurred during the month of May. The distribution by cause of death for the eight months was:

Communicable diseases	10.4 per cent
Respiratory diseases	16.2 per cent
Digestive diseases	20.6 per cent
Congenital causes	46.3 per cent
Other causes	6.5 per cent

This is about the usual distribution of infant deaths except that ordinarily congenital causes are somewhat higher.

September and October are favorable months for infants. When the returns for these months have been compiled it is probable that the infant mortality rate will be lower than given above.

United States Marine Hospitals Crowded.

"Owing to the increased amount of shipping on the Pacific coast, the marine hospitals at San Francisco and Port Townsend, operated by the United States Public Health Service, are now overcrowded," Surgeon General Hugh S. Cumming announced recently.

So great has been the influx of patients, due to the increased activity in American shipping in San Francisco, that the Public Health Service has found it necessary to place many patients in contract hospitals. To increase the capacity at San Francisco, the service now plans to remove attendants from their quarters to furnished lodgings in the downtown section of the city. By doing this, thirty-eight beds will be added to the capacity of this hospital.

Surgeon General Cumming also announced that plans for the enlargement of the marine hospital at San Francisco and for a new marine hospital to be constructed at Seattle, Washington, are now receiving serious consideration, but that appropriations for these projects will be necessary before they can be undertaken.

MORBIDITY.*

Diphtheria.

298 cases of diphtheria have been reported, as follows: San Francisco 86, Los Angeles County 23, Los Angeles 73, Oakland 20, Long Beach 13, Berkeley 6, Alameda 8, Exeter 8, Contra Costa County 5, San Joaquin County 1, Ventura County 1, Pasadena 1, Stockton 1, Loyalton 1, Ukiah 1, South San Francisco 2, Needles 1, San Luis Obispo 1, Santa Barbara 1, Sutter County 1, San Fernando 2, Piedmont 2, Selma 1, Tuolumne County 1, Oroville 1, Lemoore 1, Turlock 1, Ross 1, Alhambra 1, Riverside 1, El Monte 1, San Leandro 1, Ontario 2, Pomona 1, Merced County 1, Santa Rosa 1, Sacramento 2, Mountain View 1, Eureka 1, Santa Clara County 4, Burbank 3, Bakersfield 1, Redlands 2, Corona 2, Fresno County 2, Tulare County 3, San Jose 4.

Measles.

326 cases of measles have been reported, as follows: San Francisco 130, Los Angeles 8, Monterey County 28, Berkeley 18, San Luis Obispo County 18, Santa Clara County 9, Oakland 6, Tulare County 5, San Jose 10, San Joaquin County 10, LaVerne 5, Sonoma County 11, Arcata 7, Los Angeles County 7, Sacramento 2, Santa Rosa 5, Alhambra 2, Pasadena 2, Merced 3, San Benito County 4, Los Angeles County 1, Long Beach 1, Petaluma 2, Santa Cruz 2, Redondo Beach 1, Hanford 2, Ontario 6, Salinas 3, Burbank 1, Richmond 2, Fresno County 1, Contra Costa County 1, Lompoc 3, Visalia 1, Mendocino County 9.

Scarlet Fever.

213 cases of scarlet fever have been reported, as follows: San Francisco 43, Los Angeles County 15, Los Angeles 48, Fresno County 5, Tulare County 5, Orange County 7, Oakland 7, Whittier 10, Riverside 7, Berkeley 3, Merced County 1, Ventura County 1, Richmond 1, Colusa 1, Healdsburg 1, Colusa County 1, Sonoma County 4, Fullerton 4, Livermore 4, Taft 2, Watsonville 2, Napa County 2, Bakersfield 1, Santa Ana 1, Sacramento 1, Lassen County 2, Huntington Park 1, Lodi 2, Stockton 3, San Fernando 1, Pomona 1, San Gabriel 1, Ontario 2, Long Beach 4, Pasadena 2, Alhambra 2, Watsonville 1, Monrovia 1, Merced 6, Alameda 1, Piedmont 1, Nevada County 1, San Joaquin County 3, Mendocino County 1.

Whooping Cough.

34 cases of whooping cough have been reported, as follows: San Francisco 4, Los Angeles 6, Pasadena 12, Alhambra 5, Eureka 2, Oakland 1, San Jose 1, Los Angeles County 2, Venice 1.

Smallpox.

164 cases of smallpox have been reported, as follows: Los Angeles County 53, Los Angeles 63, Long Beach 13, Orange County 12, Kings County 1, Alhambra 2, Pomona 3, San Gabriel 1, Ventura 3, Santa Paula 12, Watts 1.

Typhoid Fever.

18 cases of typhoid have been reported, as follows: San Francisco 1, Humboldt County 1, Stockton 2, San Bernardino County 2, Santa Barbara 1, Los Angeles County 4, Sacramento 1, Orange County 2, Los Angeles 2, San Joaquin County 2.

Poliomyelitis.

7 cases of poliomyelitis have been reported, as follows: Santa Clara County 1, Contra Costa County 1, Fresno County 1, Los Angeles 4.

Epidemic Encephalitis.

2 cases of epidemic encephalitis have been reported, Los Angeles County reporting 1 and Stockton reporting 1.

Cerebrospinal Meningitis.

Sonoma County reported 1 case of cerebrospinal meningitis.

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*From reports received on December 10th and 11th for weeking ending December 8th.

COMMUNICABLE DISEASE REPORTS.

Disease	1923				1922			
	Week ending			Reports for week ending Dec. 8 received by Dec. 11	Week ending			Reports for week ending Dec. 9 received by Dec. 12
	Nov. 17	Nov. 24	Dec. 1		Nov. 18	Nov. 25	Dec. 2	
Anthrax	1	0	0	0	0	2	0	0
Cerebrospinal Meningitis	4	5	2	1	2	2	0	2
Chickenpox	194	125	140	193	144	109	86	98
Diphtheria	324	356	309	298	262	230	215	129
Dysentery (Bacillary)	5	0	0	0	0	1	1	0
Epidemic Encephalitis	4	2	1	2	0	1	4	2
Epidemic Jaundice	0	0	0	0	0	0	0	0
Gonorrhoea	83	161	96	142	90	81	171	54
Influenza	24	30	26	39	24	34	17	29
Leprosy	0	0	0	0	0	1	0	0
Malaria	2	4	1	0	3	0	2	5
Measles	265	315	291	326	14	14	21	17
Mumps	22	27	31	38	19	23	20	9
Pneumonia	82	56	52	85	92	83	105	72
Poliomyelitis	11	9	11	7	0	1	0	0
Rabies (Human)	0	0	0	0	0	0	0	0
Scarlet Fever	198	255	251	213	187	170	179	117
Smallpox	92	83	111	164	9	17	16	9
Syphilis	112	94	138	165	95	93	110	52
Tuberculosis	134	199	150	174	136	146	96	72
Typhoid Fever	20	29	28	18	18	20	15	12
Typhus Fever	0	0	0	0	0	0	0	0
Whooping Cough	34	27	20	34	57	37	57	34
Totals	1613	1777	1658	1899	1159	1066	1115	713

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